Amendments to the Claims:

A clean version of the entire set of pending claims (including amendments to the claims, if any) is submitted herewith per 37 CFR 1.121(c)(3). This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Previously Presented) A device for subfield coding video data for a large-screen display, the device comprising:

means for receiving n-bit video data for a picture element of the display and for generating, from the n-bit video data, an m-bit digital value for the picture element, where m>n; and

means for determining, from the digital value, a first number and a second number of subfields of a predetermined total number of subfields for which determined subfields the picture element emits radiation,

wherein the first number of subfields all have a same total duration, and at least two of which have a different on-period duration in which the picture element emits radiation, and

wherein the second number of subfields all have a same total duration and a same on-period duration during which the picture element emits radiation.

2. (Previously Presented) The device of claim 1, wherein the means for determining the first number are arranged to determine the first number from a sequence of a predetermined number of least significant bits of the digital value.

3. (Previously Presented) The device of claim 2, wherein the subfield coding device comprises means for generating a subfield sequence having a number of subfields which is equal to the determined number of least significant bits, and the duration of the on-period of a subfield selected from the subfield sequence is a

function of two to the power of the rank of the selected subfield in the subfield sequence.

4. (Previously Presented) The device of claim 3, wherein the subfield coding device comprises means for generating an output-enable signal depending on the order of a subfield in the subfield sequence and the value of a bit in the sequence of least significant bits, which order of the bit in the sequence corresponds to the order of the subfield.

5. (Previously Presented) The device of claim 4, wherein the means for generating the output-enable signal comprises a look-up table and a period counter for counting the length of the on-period.

6. (Previously Presented) The device of claim 1, wherein the means for determining the second number are arranged to determine the second number proportional to a value formed by the remainder of most significant bits of the digital value.

7. (Original) A display device comprising a display screen having a plurality of controllable light sources arranged in a matrix, the display device comprising a device for subfield coding as claimed in claim 1.

8. (Previously Presented) A method of subfield coding a large-screen display, the method comprising:

receiving n-bit video data for a picture element of the display;

generating, from the n-bit video data, an m-bit digital value for the picture element, where m > n; and

determining, from the digital value, a first number and a second number of subfields of a predetermined total number of subfields, for which determined subfields the picture element emits

wherein the first number of subfields all have a same total duration and at least two of which have a different on-period duration in which the picture element emits radiation, and

wherein the second number of subfields all have a same total duration and a same on-period duration during which the picture element emits radiation.

9. (Previously Presented) The method of claim 8, further comprising:

determining the first number from a sequence of a predetermined number of least significant bits of the digital value;

generating a subfield sequence having a number of subfields which is equal to the determined number of least significant bits, where the duration of the on-period of a subfield selected from the subfield sequence is a function of two to the power of the rank of the selected subfield in the subfield sequence; and

generating an output-enable signal depending on the order of a subfield in the subfield sequence and the value of a bit in the sequence of least significant bits, which order of the bit in the sequence corresponds to the order of the subfield.

10. (Previously Presented) The method of claim 8, further comprising determining the second number proportional to a value formed by a remainder of most significant bits of the digital value.

11. (Previously Presented) The method of claim 8, wherein generating the m-bit digital value (I_{out}) for the picture element from the n-bit video data (I_{in}) includes applying a gamma correction function to the video data:

$I_{out} = (I_{in})^{gamma} * (Max/Max_{In}^{gamma})$,

where Max represents a maximum m-bit value, and Max_{in} represents a maximum n-bit value.

12. (Previously Presented) The device of claim 1, further comprising a look-up table storing a number corresponding to an on-period for each of the first number of subfields and the second number of subfields.

13. (Previously Presented) The device of claim 1, wherein the means for generating the m-bit digital value (I_{out}) for the picture element from the n-bit video data (I_{in}) includes means for applying a gamma correction function to the video data:

$I_{out} = (I_{in})^{gamma} * (Max/Max_{In}^{gamma})$,

where Max represents a maximum m-bit value, and Max_{in} represents a maximum n-bit value.

14. (Currently Amended) An apparatus for coding video data for a display device comprising a plurality of picture elements, the apparatus comprising:

an image processing unit adapted to receive n-bit video data and to generate therefrom an m-bit value for a picture element of the display, where m > n;

means for determining for which ones of a first group of subfields the picture element emits radiation, on-period durations of at least two of the first group of subfields being different from each other; and

means for determining for which ones of a second group subfields the picture element emits radiation, on-period durations of all of the second group of subfields being ~~different~~ the same as each other.

15. (Previously Presented) The apparatus of claim 14, wherein the means for generating the m-bit digital value (I_{out}) for the picture element from the n-bit video data (I_{in}) includes means for applying a gamma correction function to the video data:

$I_{out} = (I_{in})^{gamma} * (Max/Max_{In}^{gamma})$,

where Max represents a maximum m-bit value, and Max_{in} represents a maximum n-bit value.

16. (Previously Presented) The apparatus of claim 14, where the second group of subfields comprises n subfields and the first group of subfields comprises (m-n) subfields.

17. (Previously Presented) The apparatus of claim 14, wherein the means for determining for which ones of the first group of subfields the picture element emits radiation and the means for determining for which ones of the second group of subfields the picture element emits radiation, operate to generate a subfield-on signal for the picture element indicating for which of the first and second groups of subfields the picture element emits radiation, and further comprising:

means for generating an output-enable signal for each of the subfields indicating an on-period of each subfield; and

a latch responsive to both the subfield-on signal and the output-enable signal to control when the picture element emits radiation.

18. (Previously Presented) The apparatus of claim 17, wherein the means for generating an output-enable signal for each of the subfields indicating an on-period of each subfield comprises a look-up table and a period counter for counting the length of the on-period in response to a clock signal.